We Claim:

1. A recording medium including recorded data, comprising:

an information area, the information area including a first region for the recorded data and a second region for copy protection information for use in decrypting the recorded data, said second region including a data unit, the data unit including a first portion having first data encoded in straight type and second portion having said copy protection information encoded in wobbled type by bi-phase modulation.

2. The recording medium according to claim 1, wherein said copy protection information prevents illegal copying of the recorded data and is encoded in wobbled pits.

3. The recording medium according to claim 1, wherein the recorded data is recorded as pits formed along tracks, wherein a frame sync signal indicative of the start of a data frame is encoded in straight pits and at least a portion of said copy protection information is positioned after the frame sync signal and encoded in wobbled pits shifted from the track center to the left and/or right.

4. The recording medium according to claim 3, wherein the distance between said information encoded in wobbled pits and

the frame sync signal is greater than a distance corresponding to the time required for detecting the frame sync signal from an RF reproduced signal created by said straight pits.

5. The recording medium according to claim 3, wherein a length of the straight pits and a length of the wobbled pits depends on at least one of a number of pits assigned to a single bit, a length of the frame synch signal, a length of the information, and a time required for detecting the frame sync signal created by said straight pits.

6. The recording medium according to claim 1, wherein the copy protection information is a decryption key for decrypting encrypted data.

7. The recording medium according to claim 6, wherein the second portion further includes a straight part of a given length followed by the wobbled part of the copy protection information.

8. The recording medium according to claim 1, wherein said second region includes a plurality of data unit, each data unit having the first portion and second portion, wherein said copy protection information is included in the plurality of second portions.

9. The recording medium according to claim 1, wherein the copy protection information is spread spectrum encoded and encoded in wobbled pits.

10. The recording medium according to claim 9, wherein the copy protection information is encoded as a ROM mark.

11. A method of forming copy protection information on a recording medium, comprising:

forming a recordable area for storing recorded data; and

forming an area on the recording medium for storing copy protection information for use in decrypting the recorded data, the area including a data unit, the data unit including a first portion having first data encoded in straight type and a second portion having said copy protection information encoded in wobbled type by bi-phase modulation.

12. A method of reproducing data from a recording medium, comprising:

detecting copy protection information for use in decrypting the data, to reproduce the data, wherein said copy protection information is recorded in a region of the recording medium, the region including a data frame, the data frame including a first portion having first data encoded in straight type and a second portion having said copy protection

information encoded in wobbled type by bi-phase modulation; and

controlling a decryption of data recorded on data area based on the detected copy protection information.

13. A method according claim 12, wherein said detecting includes detecting a frame sync signal indicative of the start of a data frame from an RF reproduced signal created by pits formed along tracks existing on the recording medium.

14. A method according claim 13, wherein said detecting occurs a fixed period after the frame sync signal is available.

15. A method according claim 12, wherein said detecting includes integrating a push-pull signal created by a difference between beams reflected by left and right portions around a track center and producing an output data bit based on the integrated value.

16. A method according claim 15, wherein said integrating begins a fixed period after detection of a frame sync signal.

17. A method according claim 15, wherein said integrating samples the push-pull signal and adds the sampled values such that for half a prescribed integration time interval, sampled values are added and for half a prescribed integration time

interval, sampled values are added with sign inversion.

18. A method according claim 12, wherein said detecting includes determining a value of a data bit based on an integrated value.

19. A method according claim 18, wherein said determining includes outputting a valid bit value if an absolute value of the integrated value exceeds a threshold level.

20. A method according claim 19, wherein the bit value output is a portion of said copy protection information for preventing illegal copying of the contents recorded on the recording medium.

21. A method of recording data on a recording medium, comprising:

generating the copy protection information for use in decrypting the data;

encoding the copy protection information as a data unit, the data unit including a first portion having first data encoded in straight type and a second portion having said copy protection information encoded in wobbled type by bi-phase modulation; and

recording the copy protection information on an specific area of the recording medium.

22. A method according claim 21, wherein the copy protection information is generated as a decryption key.

23. A method according claim 21, wherein the copy protection information is spread spectrum encoded and encoded in wobbled pits.

24. A method according claim 23, wherein the copy protection information is encoded as a ROM mark.

25. An apparatus for reproducing data from a recording medium, said apparatus utilizing copy protection information for use in decrypting the data, to reproduce the data,
said apparatus comprising :

a detector detecting the copy protection information recorded on the recording medium, wherein said copy protection information is recorded in a region of the recording medium, the region including a data frame, the data frame including a first portion having first data encoded in straight type and a second portion having said copy protection information encoded in wobbled type by bi-phase modulation; and

a signal processor for decrypting the data utilizing the copy protection information.

26. An apparatus according to claims 25, said detector including a frame synch detector for receiving an RF signal and a bandpass filter for receiving a push-pull signal.

27. An apparatus according to claims 26, said detector further including a reset timer receiving the RF signal and generating a start signal upon detection of a frame synch signal in the RF signal.

28. An apparatus according to claims 27, said detector further including a timing generator for generating a reference timing signal to synchronize a delayed start signal with an external clock signal.

29. An apparatus according to claims 28, said detector further including an integrator for integrating the push-pull signal in accordance with the reference timing signal.

30. An apparatus according to claims 29, said detector further including a bit detector for detecting a bit output by the integrator, synched by the reference timing signal output by the timing generator and outputting the bit output, if valid.